

What is claimed is:

1. An apparatus for maintaining a receiver section of an antenna at a facing position to the force of gravity, said apparatus comprising:

a gimbal with a rotation on at least two axes; and

an antenna formed as a hollowed frustum having a closed end at its decreased diameter with a feed stem removably conductive to a radio-frequency energy source, said feed stem extending through the closed end to attach said receiver section, and said frustum having an open end pivotably attached to said gimbal with the open end encompassing said receiver section at the increased diameter of said frustum and with the open end pivotable on one of the at least two axes;

wherein a movement of said antenna causes a pivoting action of the open end in relation to said gimbal and further causes movement of at least one of the axes in relation to each other such that said receiver section maintains the facing position.

2. The apparatus in accordance with claim 1, wherein said apparatus further comprises an electrically transparent container mechanically attached to said gimbal and encompassing said antenna and said gimbal in which said container is suitable for towing on an ocean surface.

3. An apparatus comprising:

means for receiving a transmitted signal; and

means for maintaining said receiving means at a facing position to the force of gravity.

4. The apparatus in accordance with claim 3, wherein said receiving means further comprises:

means for reducing detuning interference.

5. The apparatus in accordance with claim 4, said apparatus further comprising means for being towed on an ocean surface.

6. An antenna comprising:

a hollowed frustum with a closed end at its decreased diameter and an open end at an increased diameter;

a feed stem positioned at and extending through the closed end to an interior of said hollowed frustum, said feed stem removably conductive at one end to a radio-frequency energy source; and

a receiver section connected to an opposite end of said feed stem;

wherein radio-frequency energy from the radio-frequency source distributes from said feed stem as current across said frustum and said receiver section such that a hemispherical radiation pattern is formed by said frustum and said receiver section.

7. The antenna in accordance with claim 6, wherein said antenna is formed of a metallic construction.

8. The antenna in accordance with claim 7, wherein said receiver section is a plate extending from the increased diameter beyond a longitudinal axis of said frustum.

9. The antenna in accordance with claim 8, wherein the longitudinal axis is perpendicular to the decreased diameter and the increased diameter of said frustum.

10. The antenna in accordance with claim 9, wherein an integral base ring collinear with the increased diameter of said frustum is positioned at the open end of said frustum.

11. The antenna in accordance with claim 10, wherein the decreased diameter, the increased diameter and a distance between the decreased diameter and the increased diameter of said frustum is sized based on a frequency of 1625 MHz.

12. The antenna in accordance with claim 10, wherein the decreased diameter, the increased diameter and a distance between the decreased diameter and the increased diameter of said frustum is sized from a free-space wavelength of said antenna.

13. The antenna in accordance with claim 12, wherein the free-space wavelength is based on a mean frequency of said antenna.

14. The antenna in accordance with claim 13, wherein the mean frequency is the based on the square root of the multiplication of the frequencies used by global positioning satellites such that said antenna can be used for determining the geographic location of said antenna.

15. The antenna in accordance with claim 12, wherein the distance between the increased diameter and the decreased diameter of said frustum is the free-space wavelength divided by a factor of nine, the increased diameter is twice the free-space wavelength divided by a factor of five with the decreased diameter being half of the increased diameter;

wherein said plate extends from a closed width at the increased diameter, the extension of said plate sized at the free-space wavelength divided by three with the closed width and an open width of said plate at ten percent less than the extension.

16. The antenna in accordance with claim 15, wherein a length and a diameter of said feed stem is the free-space wavelength divided by a factor of ten and thirty respectfully wherein said feed stem contacts said plate at the free-space wavelength divided by a factor of eleven from the open width of said plate.